

REVISION NO. 5

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## ABBREVIATIONS

ADDR.	ADDRESS (FOR PORT AUTHORITY PLANT & STRUCTURE USE.)	EXIST.	EXISTING	RM	ROOM
ANNUN.	ANNUNCIATOR	FA	FIRE ALARM	RMT	REMOTE MULTIPLEX TERMINAL
AFF	ABOVE FINISHED FLOOR	FCO	FUSE CUTOFF	SPK	SPEAKER
ALD	ANALOG LOOP DRIVER	FL	FLOOR	SOL	SOLENOID
ATC	ADDRESSABLE TERMINAL CABINET	FMC	FLEXIBLE METALLIC CONDUIT	STR	STROBE
CAB.	CABINET	GSC	GALVANIZED STEEL CONDUIT	SE	SOUTHEAST
CKT(S)	CIRCUIT(S)	HRN	HORN	SW	SOUTHWEST
cd	CANDELA	JB	JUNCTION BOX	TEL	TELEPHONE
CL	CLOSET	MCC	MOTOR CONTROL CENTER	TSC	TERMINAL STRIP CABINET
COL	COLUMN	MER	MECHANICAL EQUIPMENT ROOM	TYP	TYPICAL
CONT.	CONTINUATION	N.T.S.	NOT TO SCALE	U.O.N.	UNLESS OTHERWISE NOTED
DWG	DRAWING	NE	NORTHEAST	WTC	WORLD TRADE CENTER
EL	ELECTRIC(AL)	NW	NORTHWEST	WT	WARDEN PHONE
ELV	ELEVATOR	PB	PULL BOX		
EMR	ELEVATOR MACHINE ROOM	PNL	PANEL		

## LEGEND

	HEAVY LINE INDICATES WORK TO BE DONE
	HEAVY DASHED LINE INDICATES DEVICE AND/OR CIRCUITRY TO BE REMOVED
	LIGHT LINE INDICATES EXISTING TO REMAIN
	DASHED & DOTTED LINE INDICATES NEW CABLE(S) ROUTED IN EXIST. CONDUIT
	EXISTING FLEXIBLE CONDUIT TO BE REMOVED
	DASHED LIGHT LINE INDICATES FUTURE WORK BY OTHERS.
	FIRE ALARM CABLE IN 3/4" GALVANIZED STEEL CONDUIT.
	CABLE ENTERING LENGTH OF 3/4" GALVANIZED STEEL CONDUIT. END OF CONDUIT TO HAVE BUSHING.
	NUMBER OF CABLES
	TYPE OF CABLE A - 2#12 AWG, 200°C, 600V SHIELDED TWISTED PAIR TEFLON CABLE, CLASS E, AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5.
	B - 2#14 AWG, 200°, 600V UNSHIELDED TWISTED PAIR TEFLON CABLE, CLASS E, AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5.
	FUSE CUT OUT. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
	XNET CABINET. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
	AUXILIARY POWER SUPPLY PAD-2R. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR, SEE DETAIL "D" ON DWG E-36.
	PAD NUMBER TSC NUMBER
	ADDRESSABLE PULL STATION. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR, SEE DETAILS "E" ON DWG E-36.
	ADDRESSABLE SMOKE DETECTOR PYROTRONICS MODEL #FP-11 WITH MOUNTING BASE PYROTRONICS MODEL #DB-11. NO SUBSTITUTIONS. "XXX" REPRESENTS LAST THREE DIGIT DEVICE ADDRESS ONLY. CONTRACTOR SHALL TAG DETECTOR HAD AND BASE WITH COMPLETE SIX DIGIT DEVICE ADDRESS (INCLUDING NETWORK/LOOP AND DEVICE ADDRESSES) AS SHOWN ABOVE. FOR INSTALLATION, SEE DETAIL "C" ON DWG E-35 AND DETAILS "A", "C" ON DWG E-36.
	ADDRESSABLE SMOKE DETECTOR PYROTRONICS MODEL #FP-11 WITH HOUSING MODEL #AD-31LP AND SAMPLING TUBE MODEL #STA-X. THE SAMPLING TUBE SIZE TO BE FIELD SELECTED BASED ON THE DUCT SIZE. NO SUBSTITUTIONS. "XXX" REPRESENTS LAST THREE DIGIT DEVICE ADDRESS ONLY. CONTRACTOR SHALL TAG DETECTOR HAD AND BASE WITH COMPLETE SIX DIGIT DEVICE ADDRESS (INCLUDING NETWORK/LOOP AND DEVICE ADDRESSES) AS SHOWN ABOVE. FOR INSTALLATION, SEE DETAIL "D" ON DWG E-36.
	PYROTRONICS MODEL TRI-B6R ADDRESSABLE INTERFACE SWITCH MODULE WITH SQUARE D TYPE KP12 RELAY MOUNTED IN JUNCTION BOX. SEE DETAILS "G" AND "H" ON DWG E-36.
	PYROTRONICS MODEL TRI-B6D, DUAL ADDRESSABLE INTERFACE SWITCH MODULE MOUNTED IN 6"x6"x4" JUNCTION BOX. SEE DETAIL "I" ON DWG E-36.
	ALD LOOP DEVICE ADDRESS: FIRST THREE DIGIT REPRESENT NETWORK/LOOP ADDRESS (AS DIRECTED BY ENGINEER), AND LAST THREE DIGIT REPRESENT DEVICE ADDRESS.
	WALL MOUNTED STROBE WITH BACK BOX WHEELOCK MODEL #SHBB. THE NUMERALS WITH SUFFIX "cd" INDICATES STROBE CANDELA RATING AND MODEL # AS FOLLOWS: 15cd - 15 CANDELA STROBE, WHEELOCK MODEL #RSS-2415W-FR 30cd - 30 CANDELA STROBE, WHEELOCK MODEL #RSS-2430W-FR 75cd - 75 CANDELA STROBE, WHEELOCK MODEL #RSS-2475W-FR NO SUBSTITUTIONS. SEE DETAIL "B" ON DWG E-36.
	WALL MOUNTED COMBINATION STROBE/SPEAKER UNIT WITH BACK BOX WHEELOCK MODEL #SBB. LISTED WITH RESPECTIVE CANDELA RATED STROBE, THE NUMERALS WITH SUFFIX "W" INDICATES SPEAKER TAP SETTING AND SUFFIX "cd" INDICATES STROBE CANDELA RATING AND MODEL # AS FOLLOWS: a) FOR SPEAKER TAP SETTING 4W: 30cd - 30 CANDELA STROBE WITH SPEAKER, WHEELOCK MODEL #ET70-2430W-FR 75cd - 75 CANDELA STROBE WITH SPEAKER, WHEELOCK MODEL #ET70-2475W-FR b) FOR SPEAKER TAP SETTING LESS THAN OR EQUAL TO 2W: 15cd - 15 CANDELA STROBE WITH SPEAKER, WHEELOCK MODEL #ET70-2415W-FR 30cd - 30 CANDELA STROBE WITH SPEAKER, WHEELOCK MODEL #ET70-2430W-FR NO SUBSTITUTIONS. SEE DETAIL "B" ON DWG E-36.
	END OF LINE (1/2 WATT 24KΩ U.O.N.) RESISTOR.
	WARDEN TELEPHONE. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR. MOUNTING HEIGHT 48" AFF TO CENTERLINE. SEE DETAIL "J" ON DWG E-36.
	SQ. PULL BOX 4 11/16" - UNLESS OTHERWISE NOTED
	POLARIZED ELECTRONIC HORN PYROTRONICS MODEL SEA-3 WITH TONE MODULE TM-1 AND END OF LINE DEVICE EL-32. NO SUBSTITUTION.
	AUXILIARY POWER SUPPLY. PYROTRONICS MODEL AS/P55-BFS-24-UL. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
	BATTERY CABINET BB-55R. FURNISHED BY THE AUTHORITY, INSTALLED BY THE CONTRACTOR.
	EXISTING WATER FLOW SWITCH
	EXISTING TAMPER SWITCH
	EXISTING PULL BOX
	EXISTING SPEAKER TO REMAIN
	EXISTING SPEAKER TO BE REMOVED
	EXISTING JUNCTION BOX TO BE REMOVED
	EXISTING SMOKE DETECTOR TO BE REMOVED
	EXISTING DUCT DETECTOR TO BE REMOVED
	EXISTING DELUGE SOLENOID VALVE
	EXISTING TERMINAL STRIP CABINET
	EXISTING ADDRESSABLE TERMINAL CABINET
	EXISTING NETWORK TERMINAL CABINET

## GENERAL

- ALL FIRE ALARM 200°C, 600V, SHIELDED TWISTED PAIR TEFLON OR APPROVED EQUIVALENT IN ALL OPEN AREA.
- ASSEMBLY DRAIN INSULATING METHOD CONTINUOUS THROUGHOUT.
- PROGRAMMING OF CONTRACTOR, FINISH PRIOR TO PROGRAMMING.
- SET TAP SETTINGS.
- ALL CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- PATCH & SEAL WITH THERMABOND.
- FOR MOUNTING OF DETECTORS, CONTRACTOR SHALL BE PERMITTED, ALL DETECTORS SHALL BE MOUNTED ON WHITE PAINT.
- ALL DEVICES AND EQUIPMENT SHALL BE INSTALLED BY THE ENGINEER FOR LABELING OF THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVED BACK OF THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVED BACK OF THE ENGINEER.
- UPON INSTALLATION, BE TESTED IN THE SPECIFICATION APPROVAL.
- GROUNDING BUS, CABINETS OR ENCL. GREEN STRANDED GROUND STUD.
- ALL PANELS, FOR KINDORF CATALOG.
- THE EXACT LOCATION PRIOR TO INSTALLATION.
- ALL FINISHES DE CONDITION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THIS PROJECT TSC, ATC, FCO.
- INSTALL AREA SH REHEAT COILS.
- LABLING OF SH THE CONTRACTOR WORK SHALL BE PANELS WILL BE.
- FOR XNET AND SIEMENS REFERENCE.
- ASBESTOS IS PRESENT IN THE FOLLOWING:
  - FLUFFY INSULATION
  - FLUFFY INSULATION
  - RETURN AIR SHUTTER
  - CEMENTITIOUS AIR SHUTTER.

## DUCT MOUNTED SMOKE DETECTORS PLACEMENT

- DUCT MOUNTED SMOKE DETECTORS SHALL BE PLACED AND INSTALLED AS MANUFACTURER'S RECOMMENDATIONS AND THE 1990 EDITION OF NFPA 72 STANDARD ON AUTOMATIC FIRE DETECTORS.
- SELECTION AND TRIMMING OF SAMPLING TUBE LENGTH SHALL BE BASED ON DUCT WIDTH WHERE THE DUCT MOUNTED SMOKE DETECTOR IS INSTALLED, CONFORMING TO MANUFACTURER'S RECOMMENDATIONS.
- DUCT MOUNTED SMOKE DETECTORS SHALL ONLY BE INSTALLED IN STRAIGHT DUCT WITH A MINIMUM LENGTH OF 36".
- INSTALL SMOKE DETECTOR AT THE CENTER LINE OF THE DUCT HEIGHT AND CLOSE AS POSSIBLE TO SIX (6) DUCT WIDTHS FROM ANY BENDS OR CORNERS. WHERE SUCH CONDITION IS NOT FEASIBLE, SMOKE DETECTOR SHALL BE INSTALLED AT THE MID POINT OF THE STRAIGHT RUN.
- FOR ANY SMOKE DETECTOR ASSOCIATED WITH RETURN AIR FAN (ACR) OR FAN (E), ONLY ONE (1) SMOKE DETECTOR WILL BE REQUIRED, TO BE INSTALLED IN THE STRAIGHT DUCT, DOWNSTREAM OF THE AIRFLOW FROM THE FAN.
- DUCT MOUNTED SMOKE DETECTOR SHALL BE INSTALLED AT LEAST 12" AWAY FROM ANY EXISTING DETECTORS.